CAPSULE SUMMARY
OF ACTIVE TASKS

January 1, 2005

UNITED STATES MEMBER STATE SUPPORT PROGRAM TO IAEA SAFEGUARDS

DEPARTMENT OF ENERGY
DEPARTMENT OF STATE
NUCLEAR REGULATORY COMMISSION
DEPARTMENT OF DEFENSE

INTERNATIONAL SAFEGUARDS PROJECT OFFICE
BROOKHAVEN NATIONAL LABORATORY
UPTON, LONG ISLAND, NEW YORK 11973

Currently Active Tasks

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
A.116		**Field Support Instruments and Techniques [USA A 931 / R. Carchon]**				
	A.116.83		LANL	$248,000.00	$241,826.00	Cascade Header Enrichment Monitor (CHEM) - The CHEM manual was submitted to David Langlands (IAEA-SGOA) for review. Mr. Langlands returned the document with comments. LANL is in the process of including the comments in the manual.
A.202		**Separation of Plutonium Isotopes for the Production of High Purity Spike Reference Materials [USA A 909 / D. Donohue]**				
			LANL	$17,100.00	$17,100.00	There was no activity this quarter.
			NBL	$77,225.00	$62,437.00	Steven Goldberg continues to coordinate with Dr. Maxim Penkin (Department of Safeguards). Dr. Goldberg focused on the shipment from ORNL to the IAEA of the test portion of the material. The material arrived in Seibersdorf in mid-November. The IAEA is waiting for VNIIEF to get a Russian import license for the shipment of the material to Arzamas. Dr. Goldberg responded to requests from Stanislav Vesnovskii (VNIIEF) to write letters of recommendation in support of a new ISTC proposal, which deals with additional improvements in Russian mass separators at Arzamas.
			ORNL	$127,284.00	$99,836.00	ORNL weighed and transferred the test and production portions of the FP-33, Pu oxide, to separate transportation bottles. The test portion (a half gram of FP-33) was shipped to the IAEA in October, and was received on November 17, 2005. Complete documentation consisting of a written description and photographs of the weighing, handling, and packing of the FP-33 was provided to the IAEA electronically. ORNL analyzed a 10 mg sample of FP-33 to measure the Pu assay, Pu isotopic values, and impurities. Most of the analyses have been completed. Preliminary results were reported to the IAEA in November.
A.218		**Controlled Potential Coulometry of 1 mg Pu with SRL Coulometer [USA A 1049 / S. Balsley]**				
			SRNL	$334,023.00	$266,930.00	There has been no activity reported for this quarter.

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A.223		**Technical Support to the Clean Laboratory [USA A 1081 / D. Donohue]**				
	A.223.09		LANL	$107,000.00	$28,000.00	Clean Laboratory Training at LANL and SAL - Taeko Shinonaga (Seibersdorf Analytical Laboratory (SAL)) was at LANL from September 13 to 22, 2005, to meet with, and observe, the LANL staff performing analyses in support of the IAEA's Network of Analytical Laboratories performing bulk analyses on environmental samples. Topics addressed included: certification of cleanroom facilities, QA/QC protocols used to verify cleanroom cleanliness, protocols for blanking cleanrooms for uranium and plutonium contamination, selection of ultra-pure reagents for cleanroom use, preparation of ultra-pure acids by sub-boiling distillation, cleaning anion exchange resin for use in ultra-low level uranium analyses, preparation of unique environmental matrices for uranium and plutonium analyses, anion exchange chromatography techniques for isolating and purifying uranium and plutonium from environmental matrices, separation of traces of plutonium in the presence of large quantities of uranium, preparation of uranium and plutonium samples for thermal ionization mass spectrometry analyses using surface ionization diffusion controlled filaments, and data reduction and error analyses for thermal ionization mass spectrometry measurements. The follow-up visit by LANL to the SAL was discussed.
A.233		**NDA Verification Techniques for BRN Enrichment Plant [USA A 1157 / R. Lafolie]**				
			ORNL	$561,870.00	$561,870.00	This task is on stand by.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
A.241		**Development of Integrated Review Software for UMS [USA A 1238 / C. Liguori]**				
			LANL	$402,000.00	$342,684.00	LANL Integrated Review Software (IRS) - LANL refined the generic definitions and interfaces for analysis COM libraries. The Analysis COM interface definition specification was updated and delivered. The Generic Test Driver for import libraries was developed. The Facility Manager component library that supports the new DVR camera configuration was delivered. The generic capability to convert facility manager databases to a new format for use in the UNARM Baseline 2 Rev 0 product was delivered.
	A.241.01		LANL	$168,870.00	$46,559.00	Adoption of Operator Provided Declarations (OPD) Data into Generic Software - There has been no activity for this quarter since the IAEA requirements document review has not been completed. An IAEA approved plan needs to be established, which includes due dates for the requirements and design documents review, and for the final delivery of the software. LANL worked with the IAEA to develop this plan in December.
	A.241.02		LANL	$123,000.00	$6,300.00	Prototype Analysis Module - The Analysis COM suggested interface methods have been defined. LANL has produced documentation with preliminary definitions for the interface methods for all Analysis COMs, which would be created from the existing Radiation Review analysis methods. The first analysis method to be prototyped is the Threshold Event analysis, which has been moved from Radiation Review to CoEventAnalysis COM. Testing is underway to verify the functionality of the component. These changes are planned for release with Baseline 3 or later. Employee absence has resulted in schedule slip.
	A.241.03		LANL	$27,000.00	$3,800.00	Implementation of VIFM Analysis - This task involves providing support to the IAEA to integrate the VXI Integrated Fuel Monitor (VIFM) Analysis COM written by the IAEA. LANL's work on this task is on hold, pending the IAEA's completion of the VIFM Analysis COM.
	A.241.04		LANL	$74,000.00	$5,009.00	IRS Upper Layer Redesign and Standardization - There has been no activity during this quarter due to higher priority tasks, as directed by the IAEA. Activity on this task is expected to accelerate in the first quarter of 2006. Software development of the redesigned upper layer is scheduled for completion in June 2006.

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A.242		**Evaluation of Miniature GRAND Electronic Unit [USA A 1239 / Y. Lee]**				
	A.242.02		LANL	$220,000.00	$206,889.00	MiniGRAND Commercialization - LANL is investigating the IAEA observation of a Digital Camera Module (DCM) humidity-dependent problem during MiniGRAND testing. This problem would not be observed necessarily at LANL or Aquila-Canberra, due to the dry local climates. Individual component tolerances should not give rise to the observed DCM behavior. The RTC has been observed to drift beyond the stated specifications in some MiniGRANDs during testing. While the observed drift is reproducible, the cause is unknown and needs to be quantified. LANL requests that this subtask remain open to address potential commercialization issues. These issues include parts obsolescence, packaging, and design issues. LANL is working with Aquila to generate a comprehensive set of documentation that reflects all properly implemented modifications during the commercialization. One outcome of this effort will be an accurate set of schematics, which will be delivered to IAEA technicians who are responsible for working with MiniGRANDs.
	A.242.06		LANL	$630,000.00	$628,012.00	MiniGRAND Microprocessor Board (MPB) Upgrade - LANL demonstrated a MiniGRAND successfully to the IAEA, using the new MPB. The IAEA has accepted the new MPB and requested a proposal to proceed with commercialization. LANL has stated that this subtask should be closed. ISPO will obtain concurrence from the IAEA prior to subtask closeout.
	A.242.09		LANL	$19,000.00	$0.00	MiniGRAND and Auxiliary Communication Device (ACD) Testing - This subtask involves testing of the MiniGRAND Automated Testing Systems (ATS), ACD modifications, and ACD temperature tests. Funding was approved for this subtask at the December 1, 2005, SSTS meeting.

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A.247		**Support for the Development of the SG System at Rokkasho Reprocessing Plant [USA A 1351 / S. Johnson]**				
	A.247.05		LANL	$814,000.00	$724,863.00	RRP Integration of Inspection Equipment - The Vitrified Canister Assay System (VCAS) detector is ready for shipment. Shipping instructions from the IAEA are needed prior to shipment. The housings for the external gamma monitors for VCAS have been fabricated (after IAEA approval of the drawings). The ion chambers are being assembled into the housings. The intention is to ship these monitors to Japan with the VCAS detector. Work is in progress on the data acquisition system for the Temporary Canister Verification System. Some electronic components need to be supplied by the IAEA in order to complete the system.
	A.247.09		LANL	$176,000.00	$162,226.00	RRP Project Coordination - This subtask provides LANL with funding for regular reporting to the IAEA, concerning all LANL Rokkasho Reprocessing Plant (RRP) work. This subtask is in progress.
	A.247.17		BMI	$46,105.00	$28,519.00	Netscreen Security Audit - This subtask involves a security audit of the IAEA's VPN/Firewall Appliance by Battelle Memorial Institute (BMI). The IAEA concurs that the project has been completed successfully. This subtask is closed.
	A.247.18		LANL	$191,000.00	$75,349.00	Stand-Alone Integrated Review Software (IRS) and Training - This subtask concerns the provision of an IRS system based on the generic LANL software tailored for use at RRP. This system is intended to be used as an interim and backup review system to the I3S inspector review system. Data export and a three-detector version of the isotopic comparison code have been completed and are being tested. Differentiating between Pu and Cm in waste measurements is in progress. An implementation plan is being discussed with the IAEA. A review training course for IAEA inspectors was held in Rokkasho, Japan, from October 3 to 5, 2005.
	A.247.19		LANL	$866,500.00	$222,503.00	UNARM Tool COM Support for NDAR - This subtask involves the conversion of existing LANL software to component object modules (COMs) to support the Non Destructive Assay Review (NDAR) system at RRP. Import Manager Flow Charts (IAEA Task 2) have been completed. The Software Architecture Document and the Miscellaneous Analyses COM interface specification document have been written. The Analyses COM prototype modules are in progress. Work on implementation of the Miscellaneous Analyses COM has begun. The software development plan has been revised, based on IAEA comments. A first quarter project review meeting between LANL, the IAEA, and ISPO will be held in Vienna in January 2006.

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A.248		**Gate Monitor at LWRs Loaded with MOX Assemblies [JNT USA A 1356 / T. Pochet]**				
			LANL	$330,000.00	$288,139.00	The SSTS approved additional funding for this task in October for LANL to complete the original two-detector gate monitor prototype and the documentation for final delivery to the IAEA. LANL is conducting final testing before shipment to Vienna. Documentation of the as-built counter is being completed.
A.250		**Enhanced ANM Capability for HKED Software at SAL [USA A 1369 / N. Doubek]**				
	A.250.01		LANL	$165,000.00	$165,142.00	Written correspondence for IAEA-SAL to answer questions about the LANL hybrid k-edge densitometry (HKED) software capabilities was prepared. A statement of LANL's commitment to continued support for, and research into, HKED needs of the IAEA was written. LANL will provide the commitment letter to ISPO. Stephen Balsley (IAEA) will inform ISPO when the HKED code validation is complete. When these two items are complete, ISPO and the IAEA will determine whether the subtask can be closed officially.
A.251		**Expert - Instrumentation Systems [USA E 1372 / M. Aparo]**				
			CFE	$550,000.00	$421,194.00	The IAEA did not provide CFE quarterly reports. Information regarding expert James Halbig's activities will be provided in the next quarter.

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A.252		**Field Support and Implementation [USA A 931 / R. Carchon]**				
	A.252.08		BNL/NCT	$59,311.55	$58,944.00	The "Consultant's Report on Down Blending of HEU at the Ulba Fuel Fabrication Facility in Oskemen, Kazakhstan" was submitted to the IAEA for review in September 2005, but some charges for this effort were in October.
	A.252.10		BNL/NCT	$68,744.00	$68,612.00	The final report entitled: "The Feasibility of Cask 'Fingerprinting' as a Spent-Fuel, Dry-Storage Cask Safeguards Technique" (ISPO-523) was submitted to the IAEA in November.
	A.252.10		LLNL	$81,000.00	$75,202.05	Gamma Camera - The final report entitled: "The Feasibility of Cask 'Fingerprinting' as a Spent-Fuel, Dry-Storage Cask Safeguards Technique" (ISPO-523) was submitted to the IAEA in November, 2005.
	A.252.14		LANL	$146,000.00	$117,184.00	FDMS and RR Codes - The completion of FDMS was delayed to accommodate higher priority work for the IAEA, namely Rokkasho Reprocessing Plant software tasks. Nevertheless, integration work by both Shirley Klosterbuer and Joe Longo continued in November. A new addition to this small software application is the complete FDMS Software User Guide. This guide replaces, and improves upon, the 'Quick Instructions' notes prepared originally for the customer. The LANL UNARM Baseline 2 release with FDMS integration is being finalized.
	A.252.16		LANL	$41,000.00	$34,500.00	Recalibration of the Hulls Measurement and Monitoring System (HMMS) - ISPO is waiting for IAEA acceptance of the final report.
A.253		**Expert - Specifications of Data Collection and Evaluation Software for RRP (P4) [USA A 1398 / S. Johnson]**				
			CFE	$410,477.00	$379,272.00	This CFE task was completed as of December 31, 2005. The expert Joseph Damico has been reassigned under Task D.158: "Expert - Design, Development, and Implementation of Data Collection and Evaluation Software for RRP." The IAEA did not provide CFE quarterly reports. This task is closed.

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A.256		**Evaluation Software for HKED Spectral Analysis for the Joint IAEA/JSGO On Site Analytical Laboratory at the Rokkasho Reprocessing Plant**				
		[USA A 1420 / G. Duhamel]				
			LANL	$160,000.00	$160,342.00	A demonstration copy of the "hardware free" version of the LANL HKED software was provided to Herbert Ottmar (ITU-Karlsruhe) for evaluation and testing purposes. The analyses to be done by Mr. Ottmar will help to demonstrate the range of actinide concentrations to which the LANL HKED software can be applied. ISPO will obtain IAEA concurrence prior to official project closeout.
A.257		**Consultant - Chemical Separation Techniques for Environmental Samples**				
		[USA A 1432 / Y. Kuno]				
			Clemson	$298,000.00	$219,442.00	This task has provided expertise to improve certain radiochemistry separation methods used in the analysis of radionuclides in safeguard samples at the IAEA Safeguards Analytical Laboratory (SAL). This work is being performed by James Navratil (Clemson University) and Amanda Padgett (Clemson University graduate student). Dr. Navratil has submitted the final report for review. When the IAEA has reviewed this final report and all comments are addressed, ISPO will closeout this
A.258		**Detection System for In Situ Measurements of Neutron Signatures from Spent Fuel Storage Containers**				
		[USA A 1434 / Y. Lee]				
			LANL	$180,000.00	$117,702.00	This task involves the design of a detector with the capability of in-situ reverification of the nuclear material inventory inside dry storage casks (both concrete and metal), in the event of the loss of continuity of knowledge and/or other reasons. This reverification needs to be done from the exterior of the casks without removal of cask shielding. Laboratory experiments using the measurement method of choice (high energy neutron imaging) are ongoing. A prototype measurement jig has been designed, and construction will begin soon. Arrangements for INL dry storage cask field-testing is on schedule. LANL anticipates a proof-of-principle measurement activity in the spring of 2006. Assuming a positive outcome of the proof-of-principle field tests, the IAEA plans to submit a request for additional funds for the construction and delivery of a field-usable detector system.

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A.259		**Expert - Development of New Seals [USA E 1452 / M. Zendel]**				
			CFE	$402,900.00	$291,095.00	This CFE task will be complete on January 31, 2006. The expert Halvor Undem has been reassigned under Task E.148: "Expert - Senior Sealing systems Engineer." The SSTS approved this new assignment at its May 18, 2005 meeting. The IAEA did not provide CFE quarterly reports. Dr. Undem's activities will be reported in the next quarter.
A.262		**Coordinated Experts' Meeting on Noble Gas Monitoring and Sampling [JNT USA A 1494 / J. Whichello]**				
			BNL	$25,000.00	$23,722.00	There was no activity this quarter. The approved scope of work has been completed. ISPO is in the process of closing out this task.
			PNNL	$70,194.00	$69,854.00	This task received additional funding at the December 1, 2005, SSTS meeting. Ted Bowyer was funded to prepare a final report based on the September 2005 "Coordinated Experts Meeting on Noble Gas Monitoring" and to make a presentation to the IAEA in Vienna. Dr. Bowyer has completed the first draft of the final report, which is being circulated to the international audience who attended the noble gas technical meeting.
A.263		**Traceability of DA Measurements - Provision of NBL Certified Reference Materials [USA A 1496 / S. Balsley]**				
			NBL	$103,000.00	$32,802.00	Peter Mason (NBL) has requested further input from the IAEA regarding projected needs for HEU metal standards and the composition of a uranium impurity standard. The IAEA has indicated a need for fifty units of HEU metal. They are surveying Safeguards Analytical Laboratory (SAL) personnel for impurity standards. The IAEA has indicated that it will respond regarding an impurity standard by the end of January. NBL has supplied the SAL with sixty-nine certified reference material (CRM) units, as of the end of FY05. The remaining item requested under Task A.263 is fifteen units of the new plutonium metal standard, which is currently in storage at LANL and awaiting shipment to NBL. The IAEA acquisition of the plutonium metal standard (CRM 126-A) is on hold, until NBL plutonium receiving and shipping activities are restarted.

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A.264		**Analytical Quality Control - Participation of SAL in NBL SME Programme**				
		[USA A 1497 / S. Balsley]				
			NBL	$25,000.00	$5,125.00	The Safeguards Analytical Laboratory (SAL) will be participating for the first time in the NBL Safeguards Measurement Evaluation Program. Dr. Srinivasan has drawn up a list of measurement evaluation program samples to be sent to SAL for uranium assay and isotope abundance measurements. The samples will be shipped to SAL in January 2006. Dr. Srinivasan will evaluate the measurement results with specific attention to conformity to (bias and precision) international target values.
A.265		**Environmental Sampling Evaluation Support**				
		[USA A 1498 / W. Fuhr]				
			ORNL	$209,000.00	$170,628.00	Environmental Sampling Evaluation Support - Diane Fischer (ORNL) completed the final revisions to the Environmental Sampling Safeguards Technical Report. The IAEA published the report during the fourth quarter of 2005. ORNL has planned a consulting trip to Vienna during January 2006.
	A.265.01		ORNL	$32,000.00	$32,000.00	ORIGEN/SCALE Software and Training - The approved scope of work for this subtask has been completed, according to ORNL. ISPO will obtain IAEA concurrence prior to project closeout.
B.080		**Training Workshop in Design Information Review for the Entire Life Cycle of Research Reactors**				
		[USA B 984 / P. Rodriguez]				
			BNL/SAC	$305,000.00	$305,000.00	This task is on stand by.
			ORNL	$0.00	$0.00	This task is on stand by.
	B.080.01		ISPO	$90,200.00	$90,200.00	This task is on stand by.
B.082		**Safeguards Training Course: Enrichment Technology**				
		[USA B 1001 / M. Hunt]				
			ORNL	$389,255.00	$389,255.00	This task is on stand by.

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B.084		**Revision of Introductory Course on Agency SG (ICAS)**				
		[USA B 1106 / H. Barroso]				
			BNL/ENT	$15,144.00	$15,144.00	
			Sonalysts	$644,000.00	$516,467.00	
						This task is on stand by.
B.090		**Workshop on Quality Assurance Techniques**				
		[JNT USA B 1277 / D. Neal]				
			SAM	$150,000.00	$98,415.00	
	B.090.01		SAM	$84,000.00	$78,199.00	
						STAT-A-MATRIX (SAM) conducted a five-day workshop on Quality Management Systems from November 7 to 11, 2005, and a two-day seminar on Quality Management for Safeguards Managers on November 14 and 15, 2005. Charles Aubrey and Michael Flynn were the instructors. These two sessions complete the deliverables on the current contract. The IAEA has submitted a request for continued support in 2006.
B.091		**Training on Remote Monitoring and Unattended Monitoring**				
		[USA B 1337 / P. Hypes]				
	B.091.03		LANL	$273,500.00	$91,885.00	
						Radiation Review Software Training - The SSTS approved funding at its December 1, 2005, meeting for LANL to modify the Radiation Review course and deliver it in Vienna.
	B.091.03		Sonalysts	$181,500.00	$92,451.00	
						LANL and Sonalysts delivered the pilot course on MIC and Radiation Review Software in May 2005. The IAEA asked that modifications to the course be made and that it be delivered in the first quarter of 2006. The SSTS approved funding for this request at the December 2005 meeting. The training course upgrade work is expected to start in January 2006.

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B.093		**IAEA Participation in U.S. Sponsored Training Courses [USA B 0086 / P. Hypes]**				
	B.093.05		LANL	$787,286.00	$488,600.00	Advanced Plutonium Verification Techniques (APVT) - The SSTS approved funding at its December 1, 2005, meeting for LANL to deliver the APVT course at LANL from February 22 to March 3, 2006.
	B.093.06		LANL	$1,225,748.00	$795,373.00	NDA Training for New IAEA Inspectors - The Inspector Nondestructive Assay (NDA) course was held in August. LANL completed material moves, administrative work, potential electrical safety hazard repairs, and return of borrowed equipment to their owners. The SSTS approved additional funding at its December 1, 2005, for LANL to deliver the next NDA course in August 2006.
	B.093.07		BNLCONTR	$12,000.00	$0.00	Expert Support to ICAS - Dr. Gerald Bosler assisted the IAEA with the gamma portion of the NDA module of the 53rd session of ICAS. This task is complete.
	B.093.07		LANL	$74,000.00	$73,100.00	This task is on stand by.
	B.093.07		SRNL	$47,000.00	$45,065.00	This task is on stand by.
B.094		**Neutron Pulse Simulator for Training and Testing [USA B 1401 / P. Hypes]**				
			LANL	$529,300.00	$434,413.00	The SSTS approved additional funding at its October 6, 2005, meeting for LANL to develop an additional option in the Neutron Pulse Simulator software, which would allow students to simulate different neutron detector heads, and different types and amounts of nuclear material. The new funding became available in late 2005.
B.096		**Workshop on Additional Protocol Activities [USA B 1415 / M. Hunt]**				
			BNL/NCT	$320,679.00	$75,484.00	BNL drafted a detailed course outline for the Additional Protocol Workshop to be conducted at BNL in 2006. BNL and SAIC are providing units in the course for IAEA inspectors to implement the AP and to perform satisfactory complementary access (CA) inspections. In November 2005, Brian Boyer traveled to Helsinki to observe the AP Complementary Access (APCA) course, that the IAEA and STUK conducted with twelve IAEA inspector students. Chris Gazze is assembling a detailed site map and categorizing facilities for the best choices for the inspector students to learn CA. John Valente is creating the mock declaration for the inspector students to analyze.

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B.098		**Enhanced Observational Skills**				
		[USA B 1446 / M. Hunt]				
			Sonalysts	$258,000.00	$228,851.00	
						There has been no activity reported for this quarter.
B.099		**Physical Inventory Taking Computer Based Training**				
		[USA B 1464 / V. Cisar]				
			BMI	$175,000.00	$90,023.00	
						The IAEA postponed the deadline for this task to the end of 2005 pending a response from BMI. BMI has submitted all documents related to this task to the IAEA for review and comment. Based on this submittal, the IAEA feels that sufficient progress has been made to complete the project.
B.101		**Expert - Senior Instrumentation Specialist - Training in NDA Equipment and Procedures**				
		[USA B 1418 / A. Hamilton]				
			IAEA	$230,000.00	$116,327.00	
						The IAEA did not provide CFE quarterly reports. Information regarding expert Philip Hypes' activities will be provided in the next quarter.
C.102		**Development of Safeguards for Final Disposal of Spent Fuel in Geological Repositories - SAGOR Phase II**				
		[JNT USA C 1204 / M. Diaz-Menendez]				
			ISPO	$5,389.00	$5,389.00	
						The IAEA submitted a request for follow-on work under 05/PSS-06: "Application of Safeguards to Geological Repositories (ASTOR), Group of Experts." The SSTS approved this new request at its December 1, 2005, meeting. The work will be done under Task C.118. This task is closed.
			LANL	$58,600.00	$58,600.00	
						The approved scope of work is complete. This task is closed.
			SNL	$17,947.32	$17,947.32	
						The approved scope of work is complete. This task is closed.
C.105		**Expert - Development of the Safeguards System for Rokkasho Reprocessing Plant (Ehinger)**				
		[USA C 1257 / S. Johnson]				
			CFE	$934,500.00	$789,403.00	
						The expert Michael Ehinger completed his assignment with the IAEA on December 8, 2005. The IAEA did not provide CFE quarterly reports. This task is closed.

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C.110		Development and Test of an Integrated Safeguards Scheme for Transfers to Dry Storage at CANDU Reactors [JNT USA C 1388 / J. Doo]	State Dept.	$9,300.00	$9,300.00	Jon Sanborn (State Department) participated in field trials of an integrated safeguards approach for the CANDU facilities at the Wolsong Nuclear Power Station (Republic of Korea) in April 2005. The purpose of the meeting was to identify integrated safeguards methods to reduce the IAEA inspector effort during spent fuel transfers from the reactor facility to dry cask storage. Dr. Sanborn is preparing a final report for the IAEA. This task will remain open until the IAEA concurs with the final

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C.111		**Safeguards System for Chernobyl Unit 4 [JNT USA E 1445 / O. Zatsepin]**				
			BNL/NCT	$281,000.00	$254,403.00	BNL reviewed the results of the August meeting at Chernobyl Nuclear Power Plant (NPP). Plans were made for a review meeting in the next quarter in Vienna.
			Sonalysts	$246,000.00	$124,275.00	Colin Carroll worked with the IAEA to prepare for the installation of the Chernobyl Shelter Access Point Monitoring system. The monitoring system was installed at the end of November 2005. Mr. Carroll updated the Chernobyl Unattended Monitoring System Design Document to reflect design changes that were made by CFE James Halbig following the August 2005 Chernobyl Shelter site survey. The Design Document is used by the Agency staff to document the Access Point monitoring system design and to communicate the Agency's plans to the Chernobyl NPP managers. Mr. Carroll participated in a post-installation debriefing meeting in Vienna, where the Agency installation team discussed problems that they encountered during the monitoring system installation. The Agency team reported that they did not have sufficient time to install the monitoring equipment at access point 131. They will require an additional day and a half to complete this work. The installation of monitoring equipment at access point 131 is scheduled tentatively for February 2006.
	C.111.01		LANL	$60,900.00	$43,193.00	Instrumentation Assistance to Chernobyl Shelter - LANL designed and manufactured a new preamplifier board. The new design allows separate control of temperature and PMT gain drift. Four MCA sets intended for installation in Chernobyl have been assembled and tested in the environmental chamber in November 2005, during the visit of James Halbig and Lucyna Ksiezak (IAEA).
	C.111.02		LANL	$50,000.00	$26,205.00	MiniADC Installation Support - The original date that Mike Browne was to travel to Chernobyl conflicted with other required trips. Dr. Browne will travel to Chernobyl in February 2006 to assist in the setup and characterization of the IAEA system.
	C.111.03		IAEA	$23,000.00	$0.00	UMS Electrical Installation Support - The IAEA will execute an installation contract directly with the Chernobyl Nuclear Power Plant (ChNPP) for electrical work at ChNPP.

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C.112		**Consultant - Development Support for Integrated Safeguards** **[USA C 1451 / D. Hurt]**				
			IAEA	$60,000.00	$46,937.00	
	C.112.01		ISPO	$57,000.00	$43,616.00	The consultant James Larrimore completed his work under a contract with BNL for the period from January to September 2005, to assist the IAEA in the development of documentation for integrated safeguards. The contract was extended through November to cover final reporting to BNL on input to safeguards approaches. The SSTS approved funding in September for an extension of this consulting work during 2006. The contract will be placed through BNL.
	C.112.02		BNL/NCT	$16,000.00	$0.00	There has been no activity reported for this quarter.
	C.112.02		BNLCONTR	$78,500.00	$0.00	There has been no activity reported for this quarter.
C.113		**Development of Techniques to Estimate the Separative Capacity of R&D Isotopes** **[USA C 1476 / W. Bush]**				
			BNL/NCT	$25,000.00	$16,594.00	BNL reviewed the draft report by LLNL, with input from the multi-lab team. BNL suggested changes and wrote a draft executive summary and a conclusion section. LLNL incorporated the changes. BNL reviewed the revised draft and made final suggestions.
			LANL	$40,000.00	$28,877.00	John Lyman (LANL) reviewed the draft report and submitted suggestions for changes to Mona Dreicer (LLNL). He suggested modifications to his contributions, in response to questions and comments about the complete report.
			LLNL	$55,000.00	$48,585.00	The final draft has been distributed for comments to the task participants. The report will be completed in the next quarter.
			ORNL	$40,785.00	$10,499.00	There has been no activity reported for this quarter.

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C.114		**Develop a PBMR Operational Model to Identify and Quantify Proliferation Indicators and Possible Diversion Scenarios** **[USA C 1547 / Y. Touil]**	INL	$40,000.00	$29,069.00	Using its advanced PEBBED code, INL completed the detailed core isotopic modeling work required to determine whether or not safeguards could be terminated for spent PBMR fuel. INL completed the "Evaluation of the Strategic Value of Fully Burnt PBMR Spent Fuel" report and submitted it to ISPO. ISPO forwarded it to the IAEA for review and comment in December.
C.115		**Quality Management Specialist** **[USA C 1555 / J. Patten]**	IAEA	$171,042.00	$0.00	Richard McCullough is expected to start this CFE assignment in January 2006.
C.116		**Determination of Decommissioned Status of Facilities** **[USA C 1561 / Y. Touil]**	BNL/NCT	$130,000.00	$0.00	There has been no activity reported for this quarter.
C.117		**Expert - Enrichment Plant Safeguards** **[/]**	IAEA	$50,000.00	$0.00	The SSTS approved this position and the selection of Michael Uzzle by phone poll in November. Dr. Uzzle will begin his assignment in the Section for System Studies on February 13, 2006.
C.118		**Application of Safeguards to Geological Repositories (ASTOR), Group of Experts** **[USA C 1580 / M. Diaz Menendez]**	ISPO	$0.00	$0.00	The SSTS approved this task on December 1, 2005, as a follow-on to Task C.102. Bruce Moran (NRC) and Rob Cockerham (State Department) will represent the United States in experts' meetings. The experts will participate at no cost to the USSP.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
D.122		**Systems Engineering Process for SGIT [USA D 1158 / G. Cherif]**				
	D.122.01		CGE&Y	$251,000.00	$162,839.00	The initial Quick Scan has been conducted. A master plan has been approved by IAEA. The SGIT System Engineering Process (SSEP) 2.1 and SSEP 2.2 have been delivered and accepted by the IAEA. The IAEA requested a change to the project plan. As not all SGIT sections were susceptible to adopting CMMI, Cap Gemini Ernst & Young (CGE&Y) agreed to develop a framework that allows for CMMI, as well as for IT Infrastructure Library and ISO-compliant processes. An adapted project plan will be presented to the Steering Committee in January 2006.
	D.122.02		BIT	$70,000.00	$67,868.00	There has been no activity reported for this quarter.
	D.122.03		IAEA	$70,000.00	$0.00	Bloodworth Integrated Technology (now a subsidiary of Diversified International Sciences Corporation) traveled to the IAEA to work with SGIT-ISI (Section for System Infrastructure Support) and SGIT-ISH (Section for Software and Hardware Services) in their process improvement effort. BIT/DISC worked with the SGIT-ISI team leads to identify areas of improvement BIT/DISC facilitated a team working session that developed the final Service Catalog and worked on "Help Desk," "Services Desk," Change Management, and the communications plan.
D.136		**Expert - Divisional Information Security Policy Officer - Terrence Dunn [USA D 1335 / J. Baute]**				
			CFE	$775,200.00	$625,463.00	The IAEA did not provide CFE quarterly reports. Information regarding expert Terrence Dunn's activities will be provided in the next quarter.

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D.137		**Consultants - Assistance on Information Collection and Information Systems [USA D 1126 / V. Braguine]**				
	D.137.01		BNL	$16,000.00	$0.00	
	D.137.01		ISPO	$73,840.00	$48,023.00	Allen Locke - Mr. Locke was scheduled to consult from November 7 to 18, but had to postpone. He will reschedule sometime in early 2006.
	D.137.03		LANL	$103,000.00	$82,200.00	Jeff Bedell - There has been no activity reported for this quarter.
	D.137.04		LANL	$235,000.00	$172,527.00	Arvid Lundy - No work was scheduled or done during the past quarter. The next work is scheduled from January 9 to January 20, 2006 in Vienna and will continue to focus on methodology and use of scientific literature as part of IAEA's open-source collection and country evaluations.
	D.137.06		PNNL	$180,000.00	$161,565.60	Ned Wogman - There has been no activity reported for this quarter. Ned Wogman is scheduled to consult with SGIT for two weeks from February 11 through February 26, 2006, and for two weeks in May 2006.
	D.137.07		SNL	$138,962.90	$124,117.50	Joyce van Berkel - There has been no activity reported for this quarter.
	D.137.08		LLNL	$161,000.00	$106,707.85	George Anzelon - Dr. Anzelon consulted with SGIT/IIS from November 28 to December 9, 2005. He evaluated scientific literature and other open source information. Dr. Anzelon analyzed various technical issues for SGIT. He participated in a workshop on advanced information tools for safeguards information analysis.
	D.137.09		LLNL	$117,862.00	$83,209.33	William Domke - There was no activity this quarter. Funding from this subtask will be used for a consulting visit by Lisa Owens Davis, under Subtask D.137.15, during the first quarter of 2006.
	D.137.11		LLNL	$72,982.27	$85,851.93	Roger Miller - Mr. Miller consulted with SGIT/IIS from October 3 to 14, 2005. He analyzed open source information on nuclear fuel cycle activities, answered various technical questions for SGIT, and prepared written analytical reports.
	D.137.12		LANL	$57,000.00	$47,588.00	Richard Wallace - Dr. Wallace consulted with SGIT/IIS from October 17 to 28, 2005.
	D.137.13		LLNL	$29,500.00	$29,969.00	Doug Vogt - There has been no activity reported for this quarter.

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	D.137.14		LLNL	$29,500.00	$29,908.00	Jim Hassberger - There has been no activity reported for this quarter.
	D.137.15		LLNL	$0.00	$0.00	Lisa Owens Davis - There has been no activity reported for this quarter. Plans were made with the IAEA for a consulting visit during the first quarter of 2006, using funds remaining from Subtask D.137.09.
	D.137.16		LLNL	$12,000.00	$0.00	Cyndee Annese - There was no activity this quarter. Ms. Annese will be working with the IAEA for two weeks beginning January 23, 2006.
	D.137.17		LANL	$20,000.00	$1,666.00	Caroline Mason - The contract between LANL and Ms. Mason was placed. LANL prepared and approved the travel for Ms. Mason to work in Vienna from November 28 to December 9, 2005. Ms. Mason completed her consulting assignment as planned.
	D.137.18		ISPO	$0.00	$0.00	Jacob Blackford - Mr. Blackford consulted for two weeks with SGIT-IIS from December 5 to 17, 2005. He produced a paper on clandestine nuclear procurement networks.
	D.137.19		ORNL	$30,000.00	$0.00	Leonard Phillips - There has been no activity reported for this quarter.
	D.137.20		ORNL	$30,000.00	$19,171.00	James David Snider - There has been no activity reported for this
	D.137.21		PNNL	$22,000.00	$12,919.00	Winston Little - There has been no activity reported for this quarter.
	D.137.22		BNL	$35,000.00	$0.00	Maryam Tatavosian - In October, former intern Maryam Tatavosian began providing a total of thirty-six weeks of consultancy support in open source research to SGIT's Information Analysis Unit, from Mercyhurst College, where she is in graduate school.
	D.137.23		LLNL	$56,000.00	$0.00	Jonathan Essner - The SSTS approved funding at its December 2005 meeting for LLNL to hire former intern Jonathan Essner to perform five and one half months of consultancy support to do open source research for SGIT's Information Analysis Unit. He will begin work in January

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D.141		**Internship Program [USA D 1396 / A. Hamilton]**				
	D.141.04		BNL	$803,634.00	$716,791.00	There has been no activity reported for this quarter.
	D.141.04		BNL/OEP	$85,000.00	$259,864.00	
	D.141.05		IAEA	$105,000.00	$60,573.00	Christopher Dalton - Mr. Dalton worked on the Common Inspection Onsite Software Package (CIOSP) 2. He continued preparing the JNFL project for their QA Audit. Mr. Dalton finished giving the CIOSP user a Goal Quantity adjustment user interface, which required changes to the database. He worked on adding a new inspection into the system. Mr. Dalton wrote a new Configuration Management (CM) Plan for the JNFL project. The purpose of a CM plan is to provide information on the requirements and procedures necessary for the CM activities of a project. The CM Plan identifies the software, hardware, and documentation CM requirements, establishes the items of the project that will be subject to SM, identifies the staff organization, roles, and responsibilities, and defines the activities and the schedules of the SM activities.
	D.141.07		BNL/OEP	$900,000.00	$238,421.00	Preparations are being made for the Intern Symposium, to be held on February 22, 2006, in Vienna.
	D.141.08		BNL	$22,000.00	$12,685.00	Kimberly Van Dyke - Ms. Van Dyke established an effective way of documenting unattended monitoring safeguards systems. After using a sample system to test the theory, she implemented Chernobyl and BN350 systems into the template. She created a step-by-step procedure for building LANL-based systems, which will be used to ensure standardization on all future systems. Ms. van Dyke's assignment at LANL is scheduled to end on January 12, 2006.
	D.141.08		LANL	$45,800.00	$14,892.00	The documentation template project is progressing. A draft template has been created by Kimberly Van Dyke, in collaboration with LANL. She has been implementing and refining this template by organizing configuration information for the Chernobyl Shelter system, which was installed in November of 2005. A system documentation set will be delivered to the IAEA. Ms. Van Dyke has made progress in implementing the BN-350 configuration into the template.

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D.146		**Quality Control Verification Software for Member States Nuclear Material Accounting Reports to the Agency**				
		[USA D 1429 / X. Wang]				
			SAIC	$135,000.00	$140,641.00	SGIT accepted the final software changes for the selected change requests. AWST delivered the final QCVS package on October 27, 2005. They provided a summary report on the maintenance phase, including the distribution of hours spent on the various maintenance tasks. The task is complete.
D.148		**Expert - Special Technology Coordinator**				
		[USA D 1443 / M. Nicholas]				
			CFE	$438,200.00	$304,290.00	The IAEA did not provide CFE quarterly reports. Information regarding expert John Hilliard's activities will be provided in the next quarter.
D.149		**Specialist Training for IAEA's Imagery Analysts**				
		[USA B 1442 / F. Claude]				
	D.149.01		IAEA	$8,501.00	$8,501.00	The IAEA has deferred additional training in satellite imagery analysis until a decision is reached as to how to proceed with the satellite imagery analysis laboratory upgrade. This subtask is on stand by.
D.150		**Expert - Systems Analyst**				
		[USA D 1460 / J. Smith]				
			CFE	$428,100.00	$299,689.00	The IAEA did not provide CFE quarterly reports. Information regarding expert Scott Miller's activities will be provided in the next quarter.
D.151		**IAEA Safeguards Information System Re-engineering Project**				
		[USA D 1461 / L. Costantini]				
			TBD	$0.00	$0.00	This task provides a mechanism for POTAS-funded support to the ISIS Re-engineering Project. Non-POTAS support is tracked under Task SP.62.
	D.151.01		LLNL	$26,000.00	$0.00	Proof-of-Concept Tests - The SSTS approved this subtask at its December 1, 2005, meeting. Ken Masica (LLNL) will work with the IAEA for two weeks in January 2006 to review plans for proof-of-concept tests for the proposed technology for the IRP.

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D.152		Software, Hardware and Database Provision for Satellite Imagery Analysis Support [USA D 1477 / F. Claude]	IAEA	$100,000.00	$0.00	At its December meeting, the SSTS approved the application of funding previously approved under Tasks D.152 and SP.66 to a new proposal for the upgrade of the satellite imagery analysis laboratory (SIAL). The IAEA had received a revised proposal for upgrading SIAL in August. They were awaiting SSTS concurrence with the proposal before using the funds. The IAEA is placing a contract with the technology providers, a collaboration between Space Imaging, Hewlett Packard, and Intergraph Corporation.
D.153		Junior Professional Officer for the JNFL Project [USA X 1513 / S. Johnson]	IAEA	$102,000.00	$44,217.00	The IAEA did not provide JPO quarterly reports. Information regarding Gregory Gerrein's activities will be provided in the next quarter.
D.154		Expert - IAEA Safeguards Information System Re-engineering Project [USA D 1520 / L. Costantini]	IAEA	$230,000.00	$23,173.00	The expert Richard Watts began his CFE assignment in October 2005. The IAEA did not provide CFE quarterly reports. Information regarding Mr. Watts' activities will be provided in the next quarter.
D.155		Imagery Analyst [USA D 1519 / F. Claude]	IAEA	$50,000.00	$0.00	Recruitment for this position is on hold.
D.156		Software Development Support: LIMS for the SAL [USA D 1523 / S. Balsley]	IAEA	$55,000.00	$55,000.00	The IAEA is implementing Phase 2 (SALIMS preparation phase) of this task under regular budget funding. ISPO has asked the IAEA to consider using Construx to assist in Phase 2.
D.157		Windows/Office 2003 Migration for Safeguards [USA D 1548 / R. Gronvius]	IAEA	$87,750.00	$0.00	Due to delays in placing the contract, the IAEA has decided to rebid the project.

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D.158		**Expert - Design, Development and Implementation of Data Collection and Evaluation Software for RRP [USA D 1556 / R. Gaetano]**				
			IAEA	$100,000.00	$0.00	The expert Joseph Damico will begin this CFE task on January 1, 2006. Mr. Damico has worked with the IAEA since September 2002, under Task A.253.
D.159		**Design and Definition for an Enhanced Information Analysis Architecture [USA D 1564 / Murray]**				
			Azura Media	$5,200.00	$0.00	Thomas Chiginsky participated in the IAEA's three-day technical workshop entitled: "Design and Definition for an Enhanced Information Analysis Architecture," from November 29 to December 1, 2005, in Vienna. He gave a presentation on deep and invisible web mining.
			LLNL	$32,000.00	$25,511.00	Doug Vogt and Dave Fuess participated in the IAEA's three-day technical workshop entitled: "Design and Definition for an Enhanced Information Analysis Architecture," from November 29 to December 1, 2005, in Vienna.
			MITRE	$8,600.00	$0.00	Mark Maybury participated in the IAEA's three-day technical workshop entitled: "Design and Definition for an Enhanced Information Analysis Architecture," from November 29 to December 1, 2005, in Vienna. He gave a presentation on open source analysis tools.
			SNL	$14,000.00	$152.00	The IAEA held a three-day technical workshop entitled: "Design and Definition for an Enhanced Information Analysis Architecture," from November 29 to December 1, 2005, in Vienna. The workshop was organized by CFE John Hilliard. David Fuess and Doug Vogt (LLNL), Nabeel Rahal (SNL), Mark Maybury (MITRE), and Tom Chiginsky (Azura Media) attended the workshop and gave presentations.
E.119		**Upgrading of GARS Review Software and Software Factory Support [USA E 1249 / B Wishard]**				
	E.119.01		Aquila	$110,000.00	$48,000.00	This task is an IAEA direct service contract with Aquila to provide quick response to software upgrades for Aquila designed General Advanced Review Software (GARS) and related products. The IAEA is to notify ISPO when requests for work are sent to Aquila. Aquila expended the final funding under the existing contract. Aquila received an IAEA purchase order for follow-on funding for GARS and Software Factory Support, through December 2006.

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E.122		**URM Systems Standardization and Support [USA E 1274 / K. Ferstl]**				
	E.122.02		LANL	$70,000.00	$66,839.00	Radiation Review for VXI Integrated Fuel Monitor (VIFM) - LANL finished this task with the completion of Radiation Review 3.2.0.0, which was released as part of Baseline 2 on December 9, 2005. This version supports reading unsigned VIFM data in the new VIFM file format. ISPO will obtain IAEA concurrence prior to project closeout.
	E.122.03		LANL	$140,000.00	$38,042.00	Performance Review Software - Work on the Performance Review Software task is on hold, pending the consideration of a new specification and a draft proposal from LANL which recommends a change of scope for the existing task. Peggy Moore and Shirley Klosterbuer drafted a new Performance Monitoring Software Requirements Specification in mid-September. They forwarded it and the draft proposal to Max Aparo (IAEA) for comment. LANL intends to resume work, pending the outcome of the IAEA review of the proposed change of scope.
	E.122.04		LANL	$314,000.00	$310,356.00	Multi-Instrument Collect Generic Module (MICGM) - LANL has indicated that this subtask was complete in August 2005. ISPO will obtain IAEA concurrence prior to project closeout.
	E.122.06		LANL	$489,000.00	$487,500.00	Auxiliary Communication Device (ACD) - LANL has indicated that this subtask is complete. ISPO is interfacing with LANL and the IAEA to confirm that all work is complete.
	E.122.08		LANL	$157,000.00	$87,673.00	Unattended Monitoring System (UMS) Software Modifications - The issues relating to ILON Configuration and ILON Terminal were addressed. New versions will be included in Baseline 2.
	E.122.09		LANL	$77,700.00	$69,900.00	Completion and Delivery of Baseline 1 - LANL has indicated that this subtask is complete. ISPO will obtain IAEA concurrence prior to project closeout.
	E.122.10		LANL	$100,000.00	$103,100.00	Study to Convert IAEA Neutron Coincidence Counting (INCC) and Isotopic Review (ISO) to Component Object Modules (COM's) - This was a scoping subtask for the conversion of INCC and ISO to COM's. LANL has stated the work under this subtask is complete. ISPO will obtain IAEA concurrence prior to subtask closeout.

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	E.122.11		LANL	$121,000.00	$83,710.00	Generic Software Components for the Chernobyl Conditioning Facility - The primary outstanding work is the new DVR and the program to help set the filtering parameters in the field (DataFiltering, DaFi). The new DVR program will be included in the Baseline 2 release in December 2005. The Data Filtering program is dependent on the latest version of MiniGRAND firmware 4.2x being completed. This will not be completed with Baseline 2, but will be released as an interim release.
	E.122.12		LANL	$241,077.00	$53,493.00	Decomposition of Analysis Modules - All import functionality from Radiation Review was removed and put it into Import COMs. This was completed with the production of SR Import and MCA Import. These products will be part of Baseline 3 or a later release.
	E.122.13		LANL	$288,000.00	$111,796.00	Control Board and Baseline Release Management and Support - This subtask was created to establish a software control board to better manage the Unattended and Remote Monitoring (UNARM) software product from LANL N-1. The software board met three times during the last quarter. Normally, the control board would meet weekly. In August 2005, however, a decision was made jointly with the IAEA, LANL, and ISPO to postpone the delivery of UNARM Baseline 2 Revision 0 until December 2005, to allow other higher priority software tasks to be completed for the Rokkasho project. This decision eliminated the need temporarily for the software control board to meet. The software control board meetings resumed the first week in November to discuss the status and schedule of UNARM Baseline 2 Revision 0.
	E.122.14		LANL	$259,500.00	$25,745.00	INCC and ISO COM Conversion - This subtask is for the conversion of the INCC and ISO codes to COMs. The COMs are planned for use at RRP and other IAEA monitoring systems. Work on this task began at the end of October 2005. The dummy Import COM modules (minimal functionality) were completed.
	E.122.15		LANL	$55,000.00	$2,997.00	Unattended Monitoring System (UMS) Software Support - This subtask provides the IAEA with continuous critical technical support regarding UMS software issues, which need to be evaluated and corrected on an accelerated schedule. One technical support request involving the ability to select drives in the copy file function was addressed and documented. The issue was recorded in LANL's Team Track issue tracking system.
	E.122.16		LANL	$61,000.00	$0.00	Baseline 2 Software Training - The SSTS approved funding at its December 1, 2005, meeting for LANL to conduct Baseline 2 Collect and Review Software training for the IAEA in Vienna. This training is scheduled for January 2006.

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	E.122.17		LANL	$34,000.00	$0.00	Advanced Multiplicity Shift Register (AMSR) Upgrade - The SSTS approved funding at its December 1, 2005, meeting for LANL to correct a problem identified with the AMSR in unattended operations. The problem is caused by fast accidentals. LANL will modify new Field Programmable Gate Arrays, ship them to the IAEA, and send an expert to the IAEA to do the installation, testing, and training on the modified AMSR.
E.125		**Remote Monitoring and Unattended Digital Surveillance Systems [USA E 1330 / M. Aparo]**				
	E.125.13		LANL	$69,000.00	$22,413.00	Optional Imaging Sensor Development Support - Advances were made on the IPIX camera effort. Software development proceeded and was able to benefit from lessons learned in the update and delivery of the new DVR 2.0.0.0 in the UNARM Baseline 2 Rev 0 product. An immersive viewer and architecture using IPIX cameras was implemented and tested in a demonstration system.
E.126		**Expert - Safeguards Equipment Systems Information Security (Tolk) [USA E 1339 / M. Aparo]**				
			CFE	$715,700.00	$585,135.00	The expert Keith Tolk completed his CFE assignment in December 2005. The IAEA did not provide CFE quarterly reports. This task is complete.
E.127		**Expert - Remote Monitored Surveillance Systems Development and Implementation Coordination (Regula) [USA E 1350 / M. Aparo]**				
			CFE	$584,700.00	$451,989.00	The IAEA did not provide CFE quarterly reports. Information regarding expert James Regula's activities will be provided in the next quarter.
E.130		**Integrated Safeguard System for SF Conditioning Facility (Part 2/3 of Chernobyl Transfer and Conditioning Campaign) [USA E 1361 / G. Ingrao]**				
	E.130.01		LANL	$1,305,000.00	$1,302,988.00	This task is related to the work described under Task E.122.11. All funding from this part of the task is exhausted, and this task is closed. The final work is being completed under E.122.11. ISPO will obtain IAEA concurrence before officially closing this task.
	E.130.01		Sonalysts	$331,227.00	$324,464.00	No work was performed by Sonalysts on this task during this working period.

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E.133		**Factory Support for DIS [USA E 1108 / B. Wishard]**				
	E.133.01		Aquila	$513,301.09	$484,841.00	
	E.133.02		Aquila	$398,125.91	$189,935.91	2005 DIS Factory Support - Kent Brown and Anthony Gonzales continue to provide factory support for the IAEA's existing digital imaging surveillance (DIS) systems. Mr. Brown participated in the Next Generation Surveillance System (NGSS) meeting in Vienna in November 2005 and is working on the review software design for NGSS. He continued testing GARS hardware platforms for field use. Mr. Brown continued work on a conceptual design for a modular UPS system for current and future surveillance systems. Planning continues for the processing of GARS surveillance data on the SG LAN. Anthony Gonzales continued testing and upgrading DIS equipment for field use. He provides liaison support with the factory for DCM 14 upgrades. He is preparing systems and is involved in the planning for GEMINI replacement and DSOS installations in EURATOM countries. Mr. Gonzales conducted a site survey in Obrigheim, Germany, for the replacement of GEMINI with DIS. He traveled to Biblis, Germany, to replace two GEMINI systems with DSOS systems and to conduct a site survey of a dry storage facility.
	E.133.03		Aquila	$134,000.00	$28,432.00	Additional Factory Support for DIS - Vio Popescu is assisting SGOC3 with the Bi Digital Imaging System (BDIS) implementation and redesign. Two more BDIS were installed. The new BDIS design (drawer version) is in production. Mr. Popescu is involved in activities required to complete the task of replacing GEMINI systems with DSOS, including concept design, planning, coordination, and site surveys. Eleven GEMINI were replaced with DSOS systems. Five of which were completed by Mr. Popescu in Spain, Belgium, and Italy. Hawk-SG-based Digital Image Surveillance (HDIS) System testing and authorization is ongoing. Mr. Popescu completed the design for the camera extended battery backup solution including IR and night vision for the DCM 14 based systems. Development of a modular DC-UPS and integration of the PIP9 industrial computer in a nineteen inch medium-size cabinet is ongoing. Mr. Popescu provided preventative maintenance training for OA inspectors. He trained a new TIE technician for DSOS installations in field use.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.134		**Mobile Safeguard System for SF Transportation from Chernobyl NPP to Conditioning Facility**				
		[USA E 1375 / G. Ingrao]				
			IAEA	$55,000.00	$55,000.00	
	E.134.01		SNL	$805,355.28	$760,035.25	The Phase 3 task to upgrade the MMCT continues to progress on schedule. The first system was installed during the week of August 29 to September 2, 2005, by Giovanni Ingrao, Karl Ferstl, Aleh Zatsepin, and Nina Wilson (IAEA), and Richard Lucero and Jack Bartberger (SNL). The system that was removed from the railcar was shipped from Chernobyl to the IAEA, and then to SNL. That shipment is undergoing a decontamination survey before being sent to Aquila. The next step is to upgrade that system to the design completed in Phase 2 of this
	E.134.02		LANL	$257,000.00	$259,295.00	
	E.134.03		Aquila	$121,250.00	$64,088.00	MMCT system number 1 was returned to SNL from the Chernobyl Nuclear Power Plant. SNL is determining the procedures for decontaminating the system, prior to delivery to Aquila for an engineering upgrade.
E.135		**Safeguards Systems for Chernobyl SF Long Term Dry Storage (Part 3/3 of Chernobyl Transfer and Conditioning Campaign)**				
		[USA E 1376 / G. Ingrao]				
	E.135.01		LANL	$3,923.00	$3,923.00	This task is on stand by.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.137		**Next Generation Camera Module and Server-Based Surveillance Systems** **[USA JNT E 1437 / B. Wishard]**				
	E.137.01		Sonalysts	$109,666.00	$92,891.00	Colin Carroll worked with Max Aparo (IAEA) to develop a change management system to document decisions made during the design and testing of the NGSS. This system is intended to memorialize the rationale for changing the NGSS User Requirements or design, if this ever becomes necessary, and to ensure that the Section Head of SGTIE approves every design change. This change management system is necessary to maintain configuration control and to ensure that key project decisions are documented, so that future project participants and managers can understand how the NGSS User Requirements and system design evolved. Mr. Carroll participated in a project status meeting in November 2005 with representatives of the IAEA, the U.S. Support Program (USSP), the German Support Program (GSP), Dr Neumann Consulting (DNC), and Aquila Technologies. NGSS Hardware Architecture proposed by DNC, Software Architecture/Implication of Software Architecture for NGSS functionality, Phase I deliverable requirements, Revised Phase II action plan and milestones, Project financing, and Project schedule were discussed. The next project status meeting is scheduled from March 7 to 8, 2006, in Vienna.
	E.137.02		Aquila	$160,000.00	$0.00	Phase 1 development of the NGSS is proceeding as scheduled. The radiation testing at the Prater Reactor has been completed and was presented at an NGSS Review Meeting on November 21 to 22, 2005, in Vienna. A Review Software Architecture was presented also. The Review Meeting concluding Phase I of the project has been scheduled for March 7 to 8, 2006, in Vienna.
E.139		**Expert - Digital Image Surveillance, Unattended Monitoring System Integration and Remote Monitoring Systems Engineer** **[USA E 1463 / M. Aparo]**				
			CFE	$354,900.00	$244,295.00	The IAEA did not provide CFE quarterly reports. Information regarding expert Lee ReFalo's activities will be provided in the next quarter.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.140		**Enhancement of Cobra Fibre Optic Seal System**				
		[USA E 1475 / G. Weeks]				
			IAEA	$346,000.00	$141,400.00	This task will improve the usability and reduce the vulnerability of the COBRA seal system (seal and verifier) used by the IAEA. Development of the new COBRA seal continues. The housing for a first hand-held reader has been completed. Testing of optics and computing hardware is on-going. The new seal mold has been finalized and ordered. The first seals will be available for testing in January 2006. The end of Phase 2 (Development Report and Test Plan) is scheduled for March
E.142		**Vulnerability Assessment of EOSS and IRES Electronic Seals**				
		[USA E 1509 / M. Goldfarb]				
			SNL	$177,000.00	$117,488.00	SNL has conducted a vulnerability assessment of the software and firmware of the IAEA's next generation electronic seal: the Electro-Optical Sealing System (EOSS). The final report has been sent to the IAEA. The IAEA has initiated a small follow-on task (IAEA Request 05/TNS-008) for a very specific vulnerability assessment of the foil membrane in the seal. SNL has indicated that Task E.142 has been completed. ISPO will obtain IAEA concurrence prior to official task closeout.
E.143		**Junior Professional Officer - Engineers Support to Unattended Monitoring**				
		[/]				
			IAEA	$90,000.00	$45,137.00	The IAEA did not provide JPO quarterly reports. Information regarding Nina Wilson's activities will be provided in the next quarter.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.144		**Ultrasonically Interrogated Metal Seal [USA E 1532 / M. Goldfarb]**				
			INL	$15,000.00	$9,613.00	INL is conducting a feasibility study to verify the IAEA's metal seal in situ, using ultrasonic techniques. Material for proof-of-concept testing was received from the IAEA. Ultrasonic testing using the INL technology was initiated. The IAEA project manager requested that all information relating to this work be protected under US Executive Order 12958. This project information is handled now as C/FGI-MOD (Confidential, Foreign Government Information, Modified Handling Authorized). Specific project information will not be reported here.
			PNNL	$100,000.00	$93,558.66	PNNL is conducting a feasibility study which includes an acoustic method for performing an in-situ verification of the existing IAEA "scratch and solder" interior metal seal signature and metal seal wire. The system will include an acoustic method for performing an in-situ and nondestructive interrogation of the metal seal wire for the purpose of tamper detection. Tests were performed, data was collected, and a draft report was prepared of the analysis for input into the proof-of-principle report, which is to be submitted to the IAEA and ISPO
E.145		**VOID-3 Vulnerability Assessment [USA E 1533 / H. Undem]**				
			LANL	$296,000.00	$151,567.00	This task involves a vulnerability assessment of the VOID-3 seal design and the VOID-3 seal prototypes (Task 1). Assessments of the real-time counterfeit resistant features (Task 2), forensic key features (Task 3), and the development of an operational protocol and an inspector training program (Task 4) are included. In mid-October, LANL met with IAEA personnel and one of the IAEA's vendors to discuss the project and various seal issues associated with the use of pressure sensitive adhesive label seals. The vendor provided two new prototype adhesive seal designs. LANL continued to analyze the original IAEA VOID seal design, as well as these new prototypes. Preliminary recommendations and a video demonstrating issues are being prepared.
E.146		**Feasibility Study for Change Detection Software Applied to Metal Seal Signatures [USA E 1534 / H. Undem]**				
			INL	$52,000.00	$43,924.00	INL is conducting a feasibility study to evaluate the use of Change Detection Software to accelerate the verification process of the IAEA's metal seal in the seals laboratory. The IAEA project manager requested that all information relating to this work be protected under US Executive Order 12958. This project information is handled now as C/FGI-MOD (Confidential, Foreign Government Information, Modified Handling Authorized). Specific project information will not be reported

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
E.147		**MMS Software Update**				
		[USA E 1535 / G. Weeks]				
			SNL	$33,000.00	$18,067.77	This task involves the first phase of the Material Management System (MMS) upgrade at the K-Area Material Storage (KAMS) Facility at Savannah River. Phase 1 funded a meeting between SNL, SRNL, and the IAEA in April, 2005, in Vienna to determine the requirements of the MMS upgrade. SNL has submitted a revised proposal to ISPO and the IAEA for Phase 2 funding of the actual MMS upgrade. A meeting will be held in Vienna between SNL and the IAEA to determine the status of Phase 2. Larry Desonier (SNL) participated in the KAMS MMS Requirements Meeting in Vienna. He continues to work with Michael Goldfarb and Georg Weeks (IAEA) to refine the requirements for the upgrade.
			SRNL	$8,000.00	$0.00	Please see Task E.147, Contractor: SNL.
E.148		**Expert - Senior Sealing Systems Engineer**				
		[/]				
			CFE	$0.00	$0.00	This CFE position was approved by the SSTS at its May 18, 2005 meeting. Halvor Undem will begin this CFE task on February 1, 2006. Dr. Undem has worked with the IAEA since January 2004, under Task A.259.
E.149		**Vulnerability Assessment of the "Sign and Forward System' (SNFS)"**				
		[USA E 1581 / Alessandrello]				
			SNL	$179,000.00	$0.00	This task involves a Vulnerability Assessment (VA) of a Sign and Forward System (SNFS) developed by the IAEA. It was approved at the December 1, 2005, SSTS Meeting. The purpose of the SNFS is to provide the IAEA with a secure means of adding authentication signatures to data files and transferring them between computers. The SNFS has been developed and tested by the IAEA using internal resources. The SNFS will be used by the IAEA at installations (ex: Rokkasho Reprocessing Plant) where remote transmission of data files from unattended cabinets to a central location exists. The ultimate goal of this VA is to provide the IAEA with a high level of confidence that the SNFS cannot be tampered with, and that authentic data is received.
F.032		**Consultant - Services Safeguards Issues (R. Hooper)**				
		[USA C 1134 / J. Cooley]				
			IAEA	$609,336.87	$523,448.00	There was no activity during this quarter.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
F.036		**Fixed Term Assistant - Procurement Services [USA F 1472 / A. Hamilton]**				
			IAEA	$356,000.00	$0.00	The IAEA did not provide CFE quarterly reports. Information regarding expert Philip Beauparlant's activities will be provided in the next quarter.
S.026		**The Design and Development of an Orientation Course for U.S. CFEs and IAEA Staff [USA X 943 /]**				
			ISPO	$395,487.00	$395,487.00	ISPO discussed the project to update the Guidebook and to develop a Guidebook for interns with the contractor Jeanne Anderer. Al Queirolo met with Ms. Anderer in Vienna in November, and Jake Blackford met with her in December, to discuss various aspects of the Guidebook project. ISPO plans to amend the contract in the first quarter of 2006 and to begin providing information to Ms. Anderer so that she can proceed with the project. ISPO plans to have the intern Guidebook available for the next class of interns that will begin in September 2006.
S.036		**Integrated Safeguards Consultations [USA X 1315 / L. Gourgon]**				
			BNL/NCT	$799,245.00	$798,899.00	Dave Gordon received comments on his report and incorporated them. Jon Sanborn (Department of State) requested and received a copy of the report, in support of his bilateral meetings with France, Germany, and the United Kingdom, in the beginning of December. The report will be released officially in January 2006.
			ISPO	$32,349.00	$32,349.00	
			LLNL	$12,300.00	$12,300.00	
			ORNL	$33,875.00	$33,875.00	
			PNNL	$25,000.00	$24,505.00	
			SNL	$9,894.51	$9,894.51	

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
S.037		**ISPO Recruitment Program [USA X 942 /]**				
			ISPO	$276,422.00	$276,521.00	ISPO staff participated in several trade shows to distribute information regarding various IAEA opportunities. Donna Occhiogrosso, Al Queirolo, and Jacob Blackford attended the IEEE Nuclear Science Symposium and Medical Imaging Conference, held in Puerto Rico in October. Susan Pepper participated in the Society of Women Engineers Career Fair in Anaheim, California, in November, with Catherine Osiecki (BNL-Office of Educational Programs) to recruit candidates for IAEA Internships. Donna Occhiogrosso and Debra Pettit attended the ANS Winter Meeting in Washington, DC, in November. Catherine Nielsen (ANL) and Paola Luchi (State Department) joined ISPO at the ANS meeting. Plans were made to attend the West 2006 conference in San Diego, California, in January 2006.
S.049		**IAEA Travel for US Support Program Tasks [USA X 1306 / A. Hamilton]**				
			IAEA	$1,867,024.00	$1,434,491.00	This task provides funding to the IAEA for task related travel. The SSTS responds to quarterly travel projections prepared by the IAEA's Support Program Administration.
S.053		**Non-Proliferation and Disarmament (NDF) Funding for SG Equipment [USA X 1342 / A. Reynaud]**				
			IAEA	$3,106,000.00	$3,078,387.00	This task was established to track the expenditure of funding provided through the Nonproliferation and Disarmament Fund (NDF) in 2000. The NDF office approved funding in 2000 for the procurement of equipment for the geospatial laboratory and digital image surveillance. ISPO, the IAEA, and the State Department's NDF office are working together to expend the remaining funding and to close out this account.
S.057		**USVC Funding in 2001 for SG Equipment [USA X 1393 / A. Reynaud]**				
			IAEA	$10,154,770.44	$8,893,108.02	This task was established to track the IAEA's expenditure of funding provided in the 2001 US Voluntary Contribution for the procurement of Safeguards equipment.
S.060		**Contracts Labor Charge [/]**				
			ISPO	$231,707.00	$183,080.00	This task provides funding for the labor charges that are incurred by the BNL Procurement and Property Management Division, while executing contracts and purchase orders for USSP tasks.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
S.061		**2002 U.S. Voluntary Contribution for Safeguards Equipment**				
		[USA X 1490 / A. Reynaud]				
			IAEA	$6,634,575.73	$5,426,598.90	This task was established to track the expenditure of the 2002 US Voluntary Contribution for Safeguards Equipment.
S.062		**ISIS Reengineering**				
		[USA D 1491 / M. Strohmayer]				
			IAEA	$9,069,516.67	$358,741.00	This task was established to track US Voluntary Contributions to the ISIS Reengineering Project (IRP). In October, the IAEA announced the selection of Microsoft and Hewlett Packard to provide the platform for the new information system. A new US cost free expert (CFE) Richard Watts began his assignment in October as part of the IRP team, under Task D.154.
	S.062.01		IAEA	$612,943.33	$412,943.33	NPT Accounting Software - ISPO received a request from the IAEA to provide funding for three additional features in the NPT Accounting Software, which was completed last quarter. The SSTS will consider this request in January 2006.
S.065		**NDF 2002**				
			IAEA	$4,155,000.00	$2,132,531.00	This task was established to track the expenditure of funding provided through the Nonproliferation and Disarmament Fund (NDF) in 2002. The NDF office approved funding for high priority NDA and surveillance equipment. ISPO, the IAEA, and the State Department's NDF office are working together to expend the remainder of the funding and to close out the account.
S.066		**2003 USVC for Safeguards Equipment**				
		[/ A. Reynaud]				
			IAEA	$7,700,000.00	$3,216,355.78	This task was established to track the IAEA's expenditure of funding provided in the 2003 US Voluntary Contribution for the procurement of Safeguards equipment.
S.069		**2004 USVC for Safeguards Equipment**				
		[/ A. Reynaud]				
			IAEA	$4,359,600.00	$1,222,329.44	This task was established to track the IAEA's expenditure of funding provided in the 2004 US Voluntary Contribution for the procurement of Safeguards equipment.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
S.071		**NDA Training Course Relocation [/]**				
			IAEA	$5,000.00	$0.00	There has been no activity reported for this quarter.
			INL	$45,000.00	$15,386.00	INL continued to develop the details of project elements required for the potential relocation of the NDA training for IAEA inspectors from LANL to INL. It was determined that the first feasible training date at INL would be early in 2007, and that some funding would need to be authorized by about a year prior to the first training date. Documented Safety Analysis review of potentially involved INL facilities continued in order to establish a detailed, final work scope for the relocation project. Preparations were made to discuss project status with the SSTS and ISPO during a project review to be held at INL in January 2006.
			ISPO	$36,000.00	($1,060.00)	ISPO continues to monitor the progress of INL's efforts to relocate the NDA Training Course.
			LANL	$24,000.00	$23,500.00	There has been no activity reported for this quarter.
			SRNL	$4,000.00	$0.00	There has been no activity reported for this quarter.
S.072		**Technical Meeting on Novel Technologies (including discussion of OIOS MSSP Management Audit), Washington, February 24-25, 2005 [/]**				
			IAEA	$0.00	$0.00	This task is on stand by, awaiting proposals from the IAEA for new activity related to novel technologies. Many such activities are being conducted under other USSP tasks described in this report.
S.073		**2005 USVC for Safeguards Equipment [/ A. Reynaud]**				
			IAEA	$4,247,492.03	$0.00	This task was established to track the IAEA's expenditure of funding provided in the 2005 US Voluntary Contribution (USVC) for the procurement of Safeguards equipment. When use of this funding was reviewed and approved by the SSTS in May 2005, the SSTS asked that the IAEA use remaining funding from previous years before using the 2005 USVC funding. This will ensure that previous years' funding is expended completely.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
S.074		Enrichment Technical Meeting [/ J. Whichello]				
			LLNL	$16,000.00	$16,397.00	George Anzelon completed final revisions to the report of Working Group 3 on the detection of undeclared enrichment activities and on the verification of R&D enrichment facilities. He contributed to the final review and editing of the overall technical meeting report. Work on this task is complete.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
S.075		Safeguards Tools for the Future [/]				
			BNL/NCT	$11,000.00	$0.00	Brian Boyer and Chris Gazze (former IAEA safeguards inspectors) attended the IAEA Safeguards Workshop on "Safeguards Tools of the Future," held in Newport, Rhode Island, from October 10 to 14, 2005. They contributed their field expertise and operational realities to each of the two working groups' solutions of two different safeguards inspection scenarios.
			INL	$9,500.00	$11,718.00	Kevin Young participated in the IAEA Safeguards Workshop on "Safeguards Tools of the Future," held in Newport, Rhode Island, from October 10 to 14, 2005. He gave a presentation on the HazMat Cam.
			ISPO	$17,000.00	$0.00	ISPO organized the IAEA Safeguards Workshop on "Safeguards Tools of the Future," held in Newport, Rhode Island, from October 10 to 14, 2005. The workshop presented the IAEA with new technologies that might be available in the next five to ten years and drafted a roadmap of how they might be used to help the Agency's nuclear inspectors to do their jobs more efficiently and effectively. More than sixty-five people attended the workshop. Twenty-three people gave presentations on new or future technologies that might improve how inspectors do their jobs. Participants came from the IAEA, six Member State Support Programs, the private sector, academia, and the US national laboratories. The IAEA was represented by ten participants, led by Nikolai Khlebnikov, director of the division of Safeguards Technical Support (SGTS).
			LANL	$20,000.00	$16,762.00	Kelly Michel and Nate Schanfein attended the IAEA Safeguards Workshop on "Safeguards Tools of the Future," held in Newport, Rhode Island, from October 10 to 14, 2005. Mr. Schanfein and Ms. Michel made a thirty-minute presentation on Virtual Reality Facilities and their potential applications and benefits for the IAEA in training, familiarization, system architecture planning, and long distance support. Ms. Michel served as one of two principal facilitators for managing and assembling the final report for the conference. The final report included a list of prioritized goals and objectives, as recommended by non-IAEA attendees at the conference.
			LLNL	$9,500.00	$11,129.00	Ken Masica participated in the IAEA Safeguards Workshop on "Safeguards Tools of the Future," held in Newport, Rhode Island, from October 10 to 14, 2005. He made a presentation on tools for information security.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
			ORNL	$10,000.00	$9,937.00	
						Chris Pickett participated in the IAEA Safeguards Workshop on "Safeguards Tools of the Future," held in Newport, Rhode Island, from October 10 to 14, 2005. Mr. Pickett made a presentation on "Real Time Tracking & Surveillance." He assisted in the preparation of the workshop's final report.
			PNNL	$12,000.00	$11,051.38	
						Caroline Mathews and Tyrone Blackburn attended the IAEA Safeguards Workshop on "Safeguards Tools of the Future," held in Newport, Rhode Island, from October 10 to 14, 2005. Ms. Mathews and Mr. Blackburn attended several sessions designed to review specific inspector scenarios and to develop recommendations to the IAEA. PNNL demonstrated an X-ray fluorescence spectroscopy (XRF) metal analysis tool, currently being deployed under NA-242's INECP with Custom Agents in partner countries.
			SNL	$17,000.00	$4,014.15	
						Susan Caskey and Jason Coombs participated in the IAEA Safeguards Workshop on "Safeguards Tools of the Future," held in Newport, Rhode Island, from October 10 to 14, 2005.

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
			Sonalysts	$86,000.00	$61,703.00	
						The IAEA (with the support of the USSP) convened the workshop on "Safeguards Tools of the Future," held in Newport, Rhode Island, from October 10 to 14, 2005, to set a roadmap for identifying and developing new technologies to support inspectors in the field. Technical experts from government, academia, and private industry explored technology trends and identified the characteristics of technology that would be available in five to ten years to enable Agency safeguards inspectors to perform their jobs more effectively and efficiently. Twenty-three people presented papers on topics such as: Sensors and Surveillance, Tracking and Navigation, Communications, Security, Computing, and Information Analysis. Presentations included virtual reality tools, geo-collaboration tools, wearable computers, 'reachback' technology, statistical data mining, and geo-location devices that use inertial guidance when GPS signals are not available, such as in a building or underground. A video recording of the presentations is available on DVD from the Department of Safeguards or from the USSP. Dr. Shirley Jackson and Dr. Vinton Cerf were keynote speakers. Dr. Jackson (President of Rensselaer Polytechnic Institute and former chair of the U.S. Nuclear Regulatory Commission) highlighted the Agency's need to harness new technology to fulfill its missions. She emphasized the need for strong educational institutions to provide the Agency with staff who are well educated in science and technology. Dr. Cerf (Vice President of Google Inc. and one of the inventors of the Internet) discussed the future of the Internet and how the convergence of widely varied applications on the Internet might affect the manner in which Safeguards inspectors perform their job. The workshop participants made recommendations to assist the Agency in developing a technology strategy grouped according to the following categories: Communications, Data Processing, Security, Sensors and Surveillance, and Non-Technology Related Issues. The participants strongest recommendation was to establish an operations center at IAEA Headquarters, which would provide a framework for implementing many of the technologies identified.
W.001		**Work For Others** **[/]**				
			LANL	$17,740.00	$22,858.00	
						This task is used to reclaim funding from completed tasks at LANL, which will be redirected to new activities at LANL. The financial numbers for this task are incorrect. ISPO is working to resolve them.
	W.001.01		LANL	$0.00	($68,746.00)	

TaskID	Subtas	Title [Agency# / Task Officer]	Organizatio	Total Budget	Total Spent	Comments
W.003		Work for Others [/]				
			ORNL	$390.00	$390.00	This task is used to reclaim funding from completed tasks at ORNL, which will be redirected to new activities at ORNL.